



Strategy, profitability and follow up of AD in Belgium

Hilde De Wachter

Sil Ryckebusch



5,200 sq mi



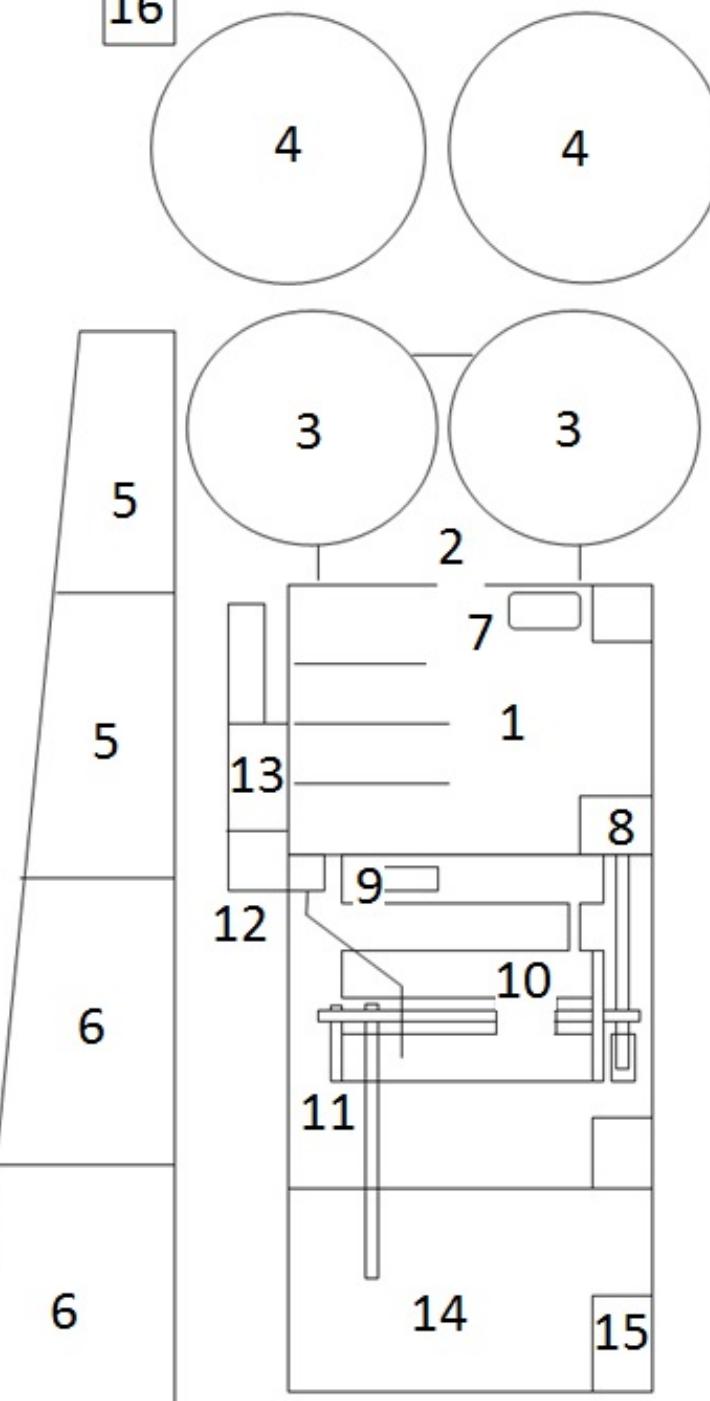
Figuur 18. Geografische verspreiding van de biogasinstallaties in Vlaanderen (in aanbouw , opstart en werking).

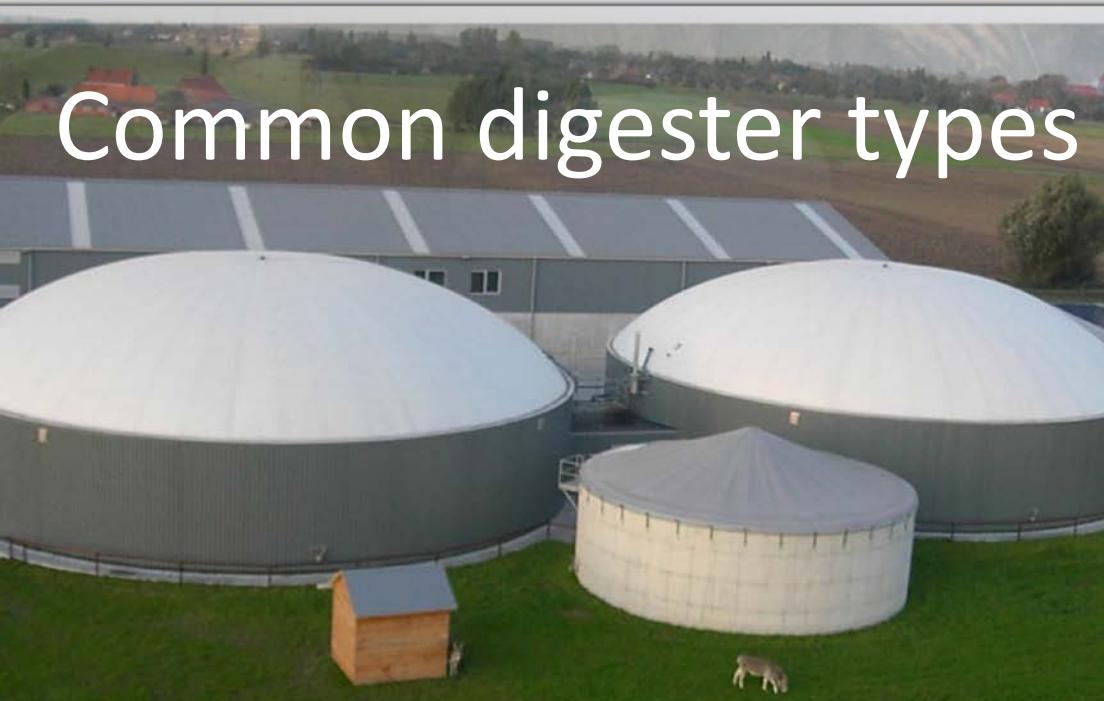
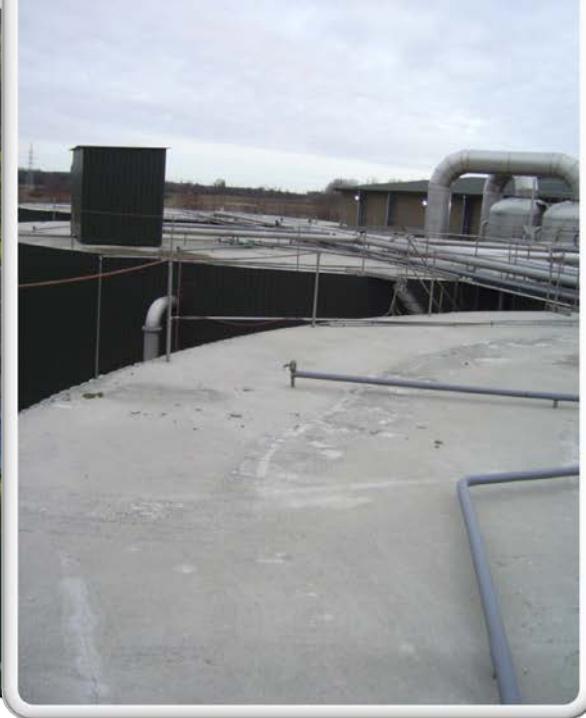
Source biogas-e





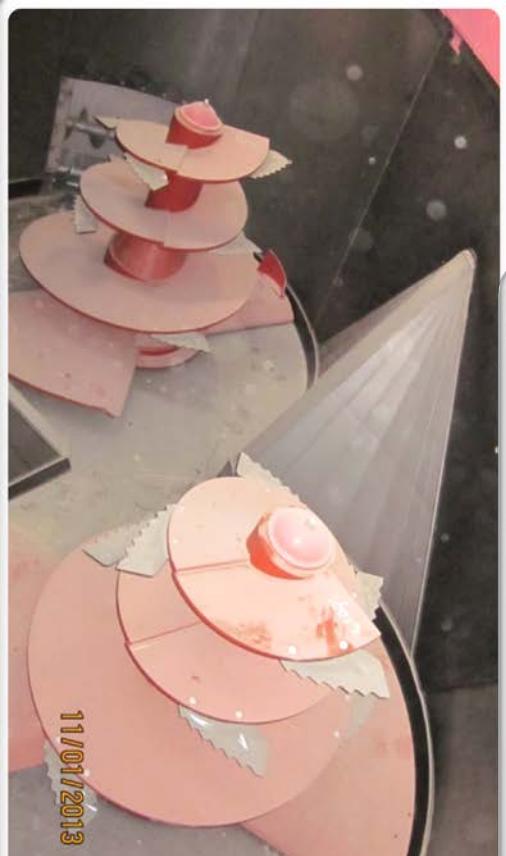
16







Digester feeding







FOAM!

- Causes
- Possible solutions



Sinking layers – settled solids



Importance of AD process monitoring

- Currently: based on ‘optimal’ values within given boundaries

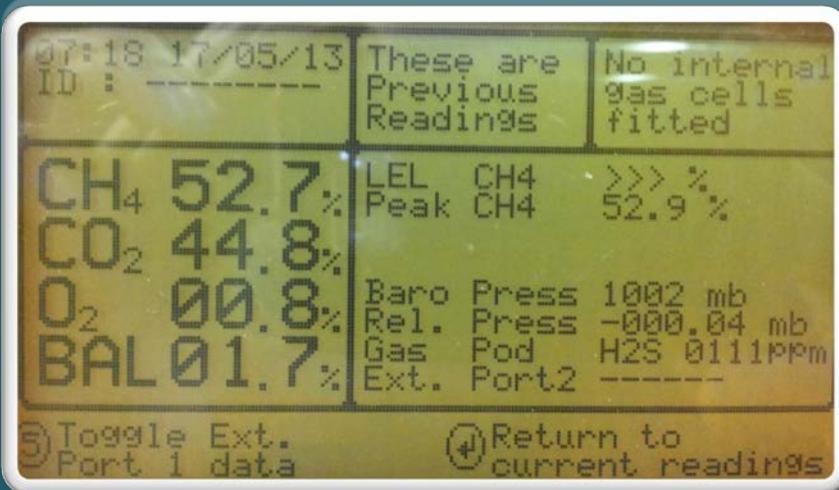
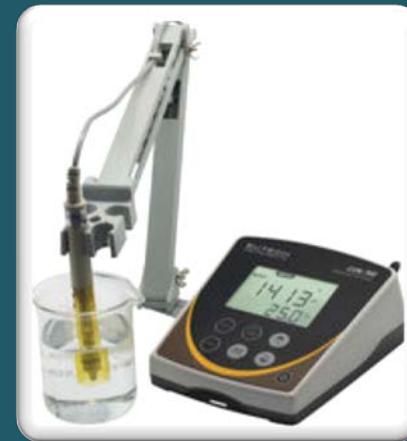
Parameter	Range	Parameter	Range
pH	7.4 – 8	VVZ	< 3 g/L
EC	20 – 25 mS/cm	Prop/Acet	> 1
TAN	1.5 – 3 g/L	Propionate	< 0.8 g/L
DM	<10 %	Iso-VFA	< 0.05 g/L
VS	<8%	CH ₄	> 50 %
TAC	8 – 20 g /L		

Statistical definition of a stable process in a biogas plant fed with energy crops (n> 1000) , source: bioreact)

- Important: changes in digester parameters!

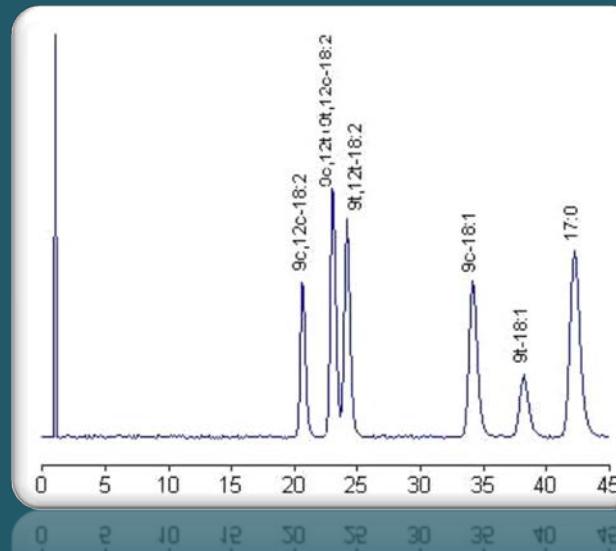
Importance of AD process monitoring

On site monitoring – fast, low cost and simple



Importance of AD process monitoring

- Off-site monitoring



Importance of AD process monitoring

= absolutely indispensable!

- Every digester is ‘unique’
- Advice is based on
 - Daily system check
 - Feedstock evaluation
 - Laboratory analysis
 - Over 8 years of co-digestion experience
- PhD study currently conducted: monitoring AD systems through microbial indicators



info@dlv.be

www.dlv.be

www.dlvinnovision.be



info@innolab.be

www.innolab.be